occurred several times, and it became necessary to pack the nasal cavities.

6th. Thin, clear discharge appeared from the right ear this morning. Had complained of pain in this ear for twenty-four hours previously.

7th. Ear still discharging profusely. Abdomen and chest negative.

8th. Complained this morning of intense pain in the left ear. Vomited milk once to-day.

9th. Still complains of ear, and also this morning for the first time of severe pain in chest. His temperature at 1 o'clock rose to 105.5° and his respiration to 40. Fine moist râles were heard over both lungs, and tubular breathing heard over the whole of the lower lobe of the right lung. Abdomen rigid and tender. Pulse became rapidly weaker, and he died at 8.45 on the morning of February 10th.

Autopsy. Both pleural cavities contain about one pint each of clear serum; the right also some lymph flocculi. The right lung was the seat of croupous pneumonia, involving the lower lobe of the apex of the upper lobe anteriorly. Plastic lymph on visceral pleura over consolidated area, and there was a gelatinous puriform collection anteriorly between the lobes.

Pericardial cavity contained a normal amount of clear serum, but there were numerous bright-red petechial spots in the visceral layers of the pericardium and on the outer surface of the heart.

Liver shows cloudy swelling.

Spleen firm and not much swollen.

Kidneys show cloudy swelling.

Intestines. Peyer's patches swollen, some resembling typhoid ulcers at an early stage of the disease, and others presenting the appearances commonly seen in the seventh, eighth, or ninth weeks after typhoid. The mesenteric glands and solitary follicles were also considerably enlarged.

Brain weighed forty-nine and one-quarter ounces, and there was a small subdural hemorrhage over the median fissure in the parietal region

REVIEWS.

A SYSTEM OF PHYSIOLOGIC THERAPEUTICS. A Practical Exposition of the Methods Other than Drug-giving Useful in the Treatment of the Sick. Edited by SOLOMON SOLIS COHEN, A.M., M.D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic; Lecturer on Clinical Medicine at the Jefferson Medical College, etc. Vols. I. and II., Electrotherapy, by GEORGE W. JACOBY, M.D., Consulting Neurologist to the German Hospital, New York City; to the Infirmary for Women and Children, etc. In two books. Book I., Electrophysics. Book II., Diagnosis, Therapeutics. Illustrated. Philadelphia: P. Blakiston's Son & Co.

IN bringing out the first system bearing upon the therapeutical measures other than the administration of drugs which are at the command of the physician, the editor has coined a most expressive title, "Physiologic Therapeutics," which is to be commended as expressing much in few words. Dr. Cohen has prefaced the series with an interesting "Foreword," written in the philosophical manner so characteristic of its author, and detailing the plan to be pursued in the issuance of the work. We think he has done wisely in "preferring compact books by single writers to bulky tomes of composite authorship." Dr. Johnson said that the books one could hold in one's hand were the best, and there is no doubt that ease of handling renders a book more apt to be consulted. It is a pity that the volumes, however, were not made of lighter material, as they are of considerable weight for the amount of matter they contain.

The first two volumes are by Dr. George W. Jacoby, of New York, and deal with that most interesting and complex subject, electrotherapy. Dr. Jacoby begins with a very lucid and concise exposition of the principles of electrophysics. The reviewer knows from practical experience as a teacher how little the average medical student knows concerning the elemental laws of electricity, and how hard it is to attempt to teach him its therapeutical applications unless he possesses some knowledge previously acquired. Dr. Jacoby's book is, of course, unsuitable for use by the student, but it will prove of the greatest value to the teacher as a guide in his work of instruction. Dr. Jacoby does not fill up his pages with discussions of theories and problems, but gives a description of the various ways of obtaining electricity, the varieties of electrical apparatus, and the physical results produced by the different methods of applying the current.

In the second volume the physiological effects of the electrical current on the different organs and tissues of the body are first considered, followed by a section devoted to the principles of electrodiagnosis and electroprognosis in diseases of the motor and sensory apparatus. The rest of the book is devoted to the direct application of our knowledge of electricity to the treatment of pathological conditions, including chapters on its surgical uses, by John Chalmers Da Costa; its use in ophthalmology, by Edward Jackson; in diseases of the nose, throat, and ear, by W. Scheppegrell; in gynecology, by F. H. Martin, and in dermatology, by Ohmann-Dumesnil. X-ray therapy is considered in all its most recent aspects.

These two volumes form a most complete, accurate, and up-to-date presentation of electrical science in its relation to medicine, and as such must possess the greatest value to all medical men, whether they have electrical appliances or not. No physician can afford to ignore the vast and constantly increasing part which electricity is taking in the study and treatment of disease, and in these books the sum of our knowledge is readily obtainable in an interesting manner. F. R. P.

ESSENTIALS OF THE DISEASES OF CHILDREN. By WILLIAM M. POWELL, M.D. Third edition. Thoroughly revised by ALFRED HAND, JR., M.D., Dispensary Physician and Pathologist to the Children's Hospital, Philadelphia. 12mo., 259 pages. Philadelphia and London: W. B. Saunders & Co.

THE third edition of this useful volume has been amended and revised so that it fully maintains its standing as a compend of the science of pediatrics. The revision has been ably conducted so as to retain the character which has caused the book to become popular and yet to introduce into it all that recent progress has made necessary.

G. M. C.

PRACTICAL HYGIENE. For Students and Practitioners of Medicine and Medical Officers. By CHARLES HARRINGTON, M.D., Assistant Professor of Hygiene in Harvard Medical School, Boston. In one very handsome octavo volume of 718 pages, with 105 engravings, and 12 full-page plates in colors and monochrome. Philadelphia and New York: Lea Brothers & Co., 1901.

THE first two hundred pages of this work are devoted by the author to a consideration of foods. He takes up severally the meats, vegetables, fruits, wines, beers, spirits, etc., that enter into diet generally, and studies them from the physiological and hygienic side, treating also of their toxic properties under certain conditions.

The important subjects of the transmission of disease by meat, fish, milk, and the importance of proper regulations in regard to meat inspection and slaughtering are given most full treatment.

Under the heading of cases illustrative of poisoning by fish and meats, the author cites many interesting cases of epidemics of poisoning due either to direct bacterial poisoning or to the toxins already formed before ingestion of the food. The question of milk as a factor in the spread of disease is particularly interesting, and is dealt with very fully. The various adulterations of food products are also discussed, and the chemical and physical means for their detection.

Under the chapter devoted to air the author takes up the study of the composition of the air, the changes that occur in it from natural as well as from artificial causes, the effects of bad air, and the part played by it as a carrier of infection. In addition there is considerable space devoted to the examination of air, the determination of the amount of carbolic acid, carbon monoxide, aqueous vapor, and bacteria. In studying the soil as a factor of diseases, the author is most clear and interesting in his statements.

Many diseases which formerly were considered as soil diseases have been proved to have but an indirect relation at most, and perhaps even no connection whatever to it. To quote the author on this subject: "Our actual knowledge of the relation of soil to disease amounts in brief to this: that surface dampness is favorable to the development of certain diseases, as rheumatism, neuralgias, and affections of the respiratory tract; that the soil is the home of many species of organisms, some of which are pathogenic, and offers under certain favorable conditions at least temporary asylum to others.

"But the preponderance of evidence thus far goes to show that under normal conditions the soil is more likely to prove hostile than hospitable to most of the infective agents with which we are well acquainted."

Under water the author takes up a thorough study of the classification of waters, and their hygienic values for drinking purposes, the substances found in water, the various sources of supply, the methods of filtration on large and small scales, the disorders connected with organic pollution, and the most important question of the influence of water in carrying infections, especially those of typhoid fever and cholera—the two diseases, epidemics of which have been most conclusively traced to infected water supplies.

Various examples illustrative of the part played by water in causing epidemics of typhoid fever are quoted, with the abrupt improvements instituted by the adoption of filtration methods. It is interesting to note that the introduction of sanitary measures with a view to control the dreadful outbreaks of cholera in India are handicapped, and, indeed, rendered almost impossible because of their conflict with the religious customs of centuries, which demand that the natives shall drink water which may have previously been bathed in by large numbers of people as well as used as a wash-tub for filthy clothing and a burial-place for dead bodies.

The values of chemical and bacteriological examinations of water are discussed and the disappointing results mentioned in not finding pathogenic germs in water known to be the cause of disease. Considerable space is given to the study of habitations, schools, etc., with the problems of heating, ventilation, and plumbing and the disposal of sewage and garbage.

The following two chapters are devoted to the subjects of disinfectants and disinfection, quarantine and the quarantine laws.

The author gives a considerable space to the discussion of formaldehyde which has recently come into such general use as a disinfectant, giving the methods of use, the various kinds of apparatus in use, the germicidal properties, and the conditions favoring its action, together